

Claims:

1. An apparatus for generating foam for foam bathing,
comprising:

a foam generation device for generating initial foam
by jetting air into a foaming agent solution; and

5 a foam fining device for fining the initial foam
to produce the foam for foam bathing,

wherein the foam generation device comprises:

a foaming chamber storing the foaming agent solution
on a bottom wall thereof; and

10 a foaming tool provided within the foaming chamber,
for jetting air from an opening to the bottom wall of the foaming
chamber, wherein the opening is provided at an end of the foaming
tool and faces the bottom wall, wherein the opening is covered
with a net having an opening ratio between 27.7% and 49.5% and
15 a number of air-jet openings per unit area between 9690/cm² and
24800/cm².

2. An apparatus for generating foam for foam bathing,
comprising:

a foam generation device for generating initial foam
20 by jetting air into a foaming agent solution; and

a foam fining device for fining the initial foam
to produce the foam for foam bathing,

wherein the foam generation device comprises:

a foaming chamber storing the foaming agent solution
on a bottom wall thereof; and

a foaming tool provided within the foaming chamber,
for jetting air from an opening to the bottom wall of the foaming
5 chamber, wherein the opening is provided at an end of the foaming
tool and faces the bottom wall, wherein the opening is covered
with a net having a mesh number between 250 mesh and 400 mesh.

3. A foam bath system comprising:

a foam generation device for generating initial foam
10 by jetting air into a foaming agent solution;

a foam fining device for fining the initial foam
to produce finer foam; and

a foam container for containing the finer foam for
foam bathing,

15 wherein the foam fining device comprises a
predetermined number of nets through which the initial foam is
fined into the finer foam, the nets having a mesh number between
120 mesh and 250 mesh, wherein the nets are placed at intervals
of a distance 30-100 times as long as a mesh size of the nets,
20 wherein the predetermined number of the nets is one selected
from 3 to 10.

4. The apparatus according to claim 1, wherein the net
is shaped like a plane in parallel with the bottom wall of the
foaming chamber.

5. The apparatus according to claim 1, wherein a ratio of an area of the bottom wall of the foaming chamber to an area of the opening of the foaming tool is set between 122 and 219.

6. The apparatus according to claim 1, wherein a ratio
5 of an area of the bottom wall of the foaming chamber to an area of the opening of the foaming tool is set between 5 and 122.

7. The apparatus according to claim 1, wherein the foaming tool is shaped like a pipe extending perpendicular to the bottom wall of the foaming chamber with squarely facing the
10 bottom wall.

8. The apparatus according to claim 1, wherein the foaming chamber has a foam outlet opening which is elongated in a longitudinal direction along a side of a bathtub, wherein a plurality of foaming tools are arranged at predetermined
15 intervals along the longitudinal direction of the foam outlet opening.

9. The apparatus according to claim 1, wherein a distance between the opening of the foaming tool and the bottom wall of the foaming chamber is set between 0.1mm and 1mm.

20 10. The apparatus according to claim 1, wherein a height

of the foaming agent solution from the bottom wall of the foaming chamber is set between 1mm and 50mm.

11. The apparatus according to claim 1, wherein the foaming chamber has a foam outlet opening which is placed at
5 a position higher than a liquid surface of the foaming agent solution by 20-300mm.

12. The apparatus according to claim 1, further comprising a temperature raising reservoir for storing an amount of foaming agent solution required for at least one time, wherein
10 the temperature raising reservoir comprises a heating device for adjusting a temperature of the foaming agent solution stored in the temperature raising reservoir, wherein the foaming agent solution is supplied from the temperature raising reservoir to the foam generation device.

13. The apparatus according to claim 12, wherein air
15 is supplied to the temperature raising reservoir to increase an inside pressure of the temperature raising reservoir and adjust inside pressures of the foaming chamber and the foam fining device, allowing easy flow of the foaming agent solution from the
20 temperature raising reservoir to the foam generation device.

14. The foam bath system according to claim 3, wherein the predetermined number of the nets is one selected from 4 and

5.

15. The foam bath system according to claim 3, wherein the nets are placed at intervals of a distance 50-70 times as long as the mesh size of the nets.

5 16. The foam bath system according to claim 3, wherein the nets have a mesh number between 150 mesh and 200 mesh.

17. The foam bath system according to claim 3, wherein the foam generation device comprises:

a foaming chamber storing the foaming agent solution
10 on a bottom wall thereof; and

a foaming tool provided within the foaming chamber,
for jetting air from an opening to the bottom wall of the foaming
chamber, wherein the opening is provided at an end of the foaming
tool and faces the bottom wall, wherein the opening is covered
15 with a net having a mesh number between 100 mesh and 400 mesh.

18. The foam bath system according to claim 3, wherein the foam container is a transformable-type foam container.

19. The foam bath system according to claim 3, wherein the transformable-type foam container is shaped like a bag
20 allowing a body to be contained therein.

20. The foam bath system according to claim 3, wherein the foam container is a bathtub, wherein the foam fining device has a foam outlet opening through which the finer foam is supplied to the bathtub, wherein the foam outlet opening is elongated
5 in a longitudinal direction of the bathtub and provided at a position near a bottom wall of the bathtub in each side wall of the bathtub, wherein the foam generation device and the foam fining device are attached to the bathtub.

21. The foam bath system according to claim 3, wherein
10 a volume ratio of water content in the finer foam to gas in bubbles of the finer foam at 40 °C is between 1:50 and 1:200.

22. The foam bath system according to claim 3, wherein an average diameter of bubbles of the finer foam is between 0.2mm and 2mm.

15 23. The foam bath system according to claim 3, wherein a foam generating agent of the foaming agent solution is liquid soap, wherein a weight ratio of the liquid soap to water is between 3:97 and 10:90.

20 24. The foam bath system according to claim 3, wherein the foam generation device comprises at least one of a nozzle, an orifice, and an air-scattering plate.

25. The foam bath system according to claim 3, wherein a pressure on a first layer of the nets in operation is set between 2.2kPa and 2.7kPa.